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* * * * * * * * * *  Welcome to STN International  * * * * * * * * * *

 NEWS  1          Web Page URLs for STN Seminar Schedule - N. America
 NEWS  2          "Ask CAS" for self-help around the clock
 NEWS  3  SEP 09  CA/CAplus records now contain indexing from 1907 to the
                  present
 NEWS  4  DEC 08  INPADOC: Legal Status data reloaded
 NEWS  5  SEP 29  DISSABS now available on STN
 NEWS  6  OCT 10  PCTFULL: Two new display fields added
 NEWS  7  OCT 21  BIOSIS file reloaded and enhanced
 NEWS  8  OCT 28  BIOSIS file segment of TOXCENTER reloaded and enhanced
 NEWS  9  NOV 24  MSDS-CCOHS file reloaded
 NEWS 10  DEC 08  CABA reloaded with left truncation
 NEWS 11  DEC 08  IMS file names changed
 NEWS 12  DEC 09  Experimental property data collected by CAS now available
                  in REGISTRY
 NEWS 13  DEC 09  STN Entry Date available for display in REGISTRY and CA/CAplus
 NEWS 14  DEC 17  DGENE: Two new display fields added
 NEWS 15  DEC 18  BIOTECHNO no longer updated
 NEWS 16  DEC 19  CROPU no longer updated; subscriber discount no longer
                  available
 NEWS 17  DEC 22  Additional INPI reactions and pre-1907 documents added to CAS
                  databases
 NEWS 18  DEC 22  IFIPAT/IFIUDB/IFICDB reloaded with new data and search fields
 NEWS 19  DEC 22  ABI-INFORM now available on STN
 NEWS 20  JAN 27  Source of Registration (SR) information in REGISTRY updated
                  and searchable
 NEWS 21  JAN 27  A new search aid, the Company Name Thesaurus, available in
                  CA/CAplus

 NEWS EXPRESS  DECEMBER 28 CURRENT WINDOWS VERSION IS V7.00, CURRENT
               MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),
               AND CURRENT DISCOVER FILE IS DATED 23 SEPTEMBER 2003
 NEWS HOURS    STN Operating Hours Plus Help Desk Availability
 NEWS INTER    General Internet Information
 NEWS LOGIN    Welcome Banner and News Items
 NEWS PHONE    Direct Dial and Telecommunication Network Access to STN
 NEWS WWW      CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that
specific topic.

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  * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 12:03:30 ON 03 FEB 2004

=> file medline
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.21       0.21

FILE 'MEDLINE' ENTERED AT 12:03:37 ON 03 FEB 2004

 FILE LAST UPDATED: 31 JAN 2004 (20040131/UP).  FILE COVERS 1958 TO DATE.
```

On December 14, 2003, the 2004 MeSH terms were loaded. See HELP RLOAD for details.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2004 vocabulary. See http://www.nlm.nih.gov/mesh/ and http:\\www.nih.gov/pubs/yechbull/nd03/nd03_mesh.html for a description on changes.

This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> s tsien?/au and pires
           496 TSIEN?/AU
            23 PIRES
L1            0 TSIEN?/AU AND PIRES

=> s tsien?/au and nature/jt
           496 TSIEN?/AU
         56255 NATURE/JT
                 (NATURE/JT)
L2           52 TSIEN?/AU AND NATURE/JT

=> s l2 and 392/so
          9008 392/SO
L3           2 L2 AND 392/SO

=> d 1-2 ti

L3   ANSWER 1 OF 2     MEDLINE on STN
 Citing
References
TI   Cell-permeant caged InsP3 ester shows that Ca2+ spike frequency can
     optimize gene expression.

L3   ANSWER 2 OF 2     MEDLINE on STN
 Citing
References
TI   Translocation of calmodulin to the nucleus supports CREB phosphorylation
     in hippocampal neurons.

=> d 2 bib

L3   ANSWER 2 OF 2     MEDLINE on STN
  Full      Citing
  Text    References
AN   1998175722     MEDLINE
DN   98175722   PubMed ID: 9515967
TI   Translocation of calmodulin to the nucleus supports CREB phosphorylation
     in hippocampal neurons.
AU   Deisseroth K; Heist E K; Tsien R W
CS   Department of Molecular and Cellular Physiology, Beckman Center for
     Molecular and Genetic Medicine, Stanford University School of Medicine,
     California 94305-5426, USA.
SO   NATURE, (1998 Mar 12) 392 (6672) 198-202.
     Journal code: 0410462. ISSN: 0028-0836.
CY   ENGLAND: United Kingdom
DT   Journal; Article; (JOURNAL ARTICLE)
LA   English
```

FS Priority Journals
EM 199803
ED Entered STN: 19980407
Last Updated on STN: 19980407
Entered Medline: 19980326

=> d 2 ab

L3 ANSWER 2 OF 2 MEDLINE on STN

AB Activation of the transcription factor CREB is thought to be important in the formation of long-term memory in several animal species. The phosphorylation of a serine residue at position 133 of CREB is critical for activation of CREB. This phosphorylation is rapid when driven by brief synaptic activity in hippocampal neurons. It is initiated by a highly local, rise in calcium ion concentrations near the cell membrane, but culminates in the activation of a specific calmodulin-dependent kinase known as CaMK IV, which is constitutively present in the neuronal nucleus. It is unclear how the signal is conveyed from the synapse to the nucleus. We show here that brief bursts of activity cause a swift (approximately 1 min) translocation of calmodulin from the cytoplasm to the nucleus, and that this translocation is important for the rapid phosphorylation of CREB. Certain Ca2+ entry systems (L-type Ca2+ channels and NMDA receptors) are able to cause mobilization of calmodulin, whereas others (N- and P/Q-type Ca2+ channels) are not. This translocation of calmodulin provides a form of cellular communication that combines the specificity of local Ca2+ signalling with the ability to produce action at a distance.

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